ACCESSION NR: AP3003785

factor,  $\lambda$  - x-ray wavelength, V - volume of elementary cell, p - recurrence factor. Using these definitions plus the fact that the x-ray diagrams of partially oriented polymers are superpositions of the texture x-ray diagram upon the Debye x-ray diagram, the formula to determine  $n_{or}$  yields

$$\mathbf{n}_{OT} = \frac{4\pi m^2 c^4 V^2 I_{\text{Ten}} \cdot V \sin^2 \alpha - \cos^2 20}{\epsilon^4 \lambda^3 I_0 F_{hkl}^2 \cdot P_{\text{ten}} \delta V_0 (1 + \cos^2 20)}$$

where 0 - Breggov reflection angle and  $\propto$  - angle between scattered beam and texture axis. "The authors are grateful to A. I. Kitaygorodskiy for his interest in this work." Orig. art. has: 11 formulas and 2 figures.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Organoelemental Compounds, AN SSSR)

SUBMITTED: 06Dec61

DATE ACQ: 08Aug63

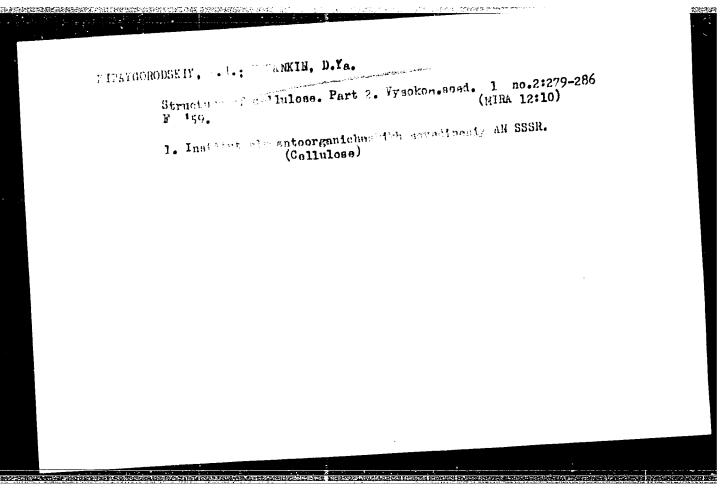
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SUB CODE: SS

NO REF SOV: 003

OTHER: OOL

Card 2/2



sov/70-4-4-30/34

A CONTROL OF THE PROPERTY OF T

AUTHORS: Kitaygorodskiy, A.I. and Tsvankin, D.Ya.

TITLE: One-dimensional Diffraction in X-ray Diffraction Patterns

from Polymers

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 4, pp 625-627 (USSR)

ABSTRACT: Theoretical. One-dimensional diffraction showing an intensity distribution spread out continuously along layers in reciprocal space is sometimes encountered for

systems of chains which are parallel but otherwise disordered. It is, however, shown here that one-dimensional scattering can occur when there are only slight departures from strict three-dimensional order due to defects in the packing of chains. The effects of disturbances of the proper inter-chain distances in the equatorial plane and the displacements of the chains parallel to their axes is examined. It is assumed (A) that the packing defects consist of the chance departures of the chain axes from the positions they would have in the ideal lattice or (B) that the defectiveness of the packing increases in a radial direction. The result for (A) is analogous to that

Card1/3

One-dimensional Diffraction in X-ray Diffraction Patterns from Polymers

obtained for isotropic thermal vibrations but there is a supplementary term causing the intensity to be distributed in layer lines. For the zero layer, the intensity falls off at large and at small angles and for higher layers it decreases with distance from the meridian. For (B) the diffraction field will get narrower but the lines will become wider than in the first case. If the disturbance to the long-range order increases, then on the zero layer the scattering will become of the gaseous type with an increase at low angles. Thus, if such a disturbance occurs then a continuous intensity distribution along the layer lines arises, because of the one-dimensional diffraction of the separate chains. There are 4 references, of which 2 are Soviet, 1 German and 1 English.

Card 2/3

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210018-9"

sov/70-4-4-30/34

One-dimensional Diffraction in X-ray Diffraction Patterns from

Institut elementoorganicheskikh soyedineniy AN SSSR Polymers (Insitute of Elemental-organic Compounds of the ASSOCIATION:

Ac.S., USSR)

SUBMITTED:

March 15, 1959

Card 3/3

# TSVANKIN, D. Ya.

X-Ray Diffraction by Systems of Long Molecules and One-Dimensional X-Ray Diffraction of Cellulose."

The Inst. of Organo-Element Compounds of the USSR Acad. of Sciences, Moscow, USSR. paper submitted for 5th Gen. Assembly, Symposium on Lattice Defects, Intl. Union of Crystallography, Cambridge U.K. Aug 1960.

KITAYGORODSKIY, A.I.; TSVANKIN, D.Ya.; PETROV, Yu.M. Large periods in enanthic fibers. Vysokom.soed. 3 no.9:1428
(MIRA 14:9) (Folyamides)

33378 5/190/62/004/002/007/021 B101/B110

15.8080

1436

AUTHORS:

Moskatov, K. A., Tsvankin, D. Ya.

Change in the structure of caprone on heat treatment

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 2, 1962, 201-206

TEXT: An X-ray study was made of two caprone resin specimens (6.4.55 mm, according to Poct(GOST) 4648-56) after they had been treated with boiling according to NOCI(GUST) 4048-20) after they had been treated with conting to NOCI(GUST) 4048-20) after they had been treated with conting to specimen A was a product of the Kiyevskiy kombinat water for up to 15 hrs. Specimen A was a product of the Kiyevskiy kombinat iskusstvennogo volokna (Kiyev Combine of Synthetic Fibers), specimen B was a product of the Vijnskiy kombinet iskusetvennogo volokna (Vijnskiy kombinet iskusetvennogo volokna (Vijnski a product of the Klinskiy kombinat iskusstvennogo volokna (Klin Combine of Synthetic Fibers). The authors observed three types of intensity distribution (Fig. 3) The Year nictures of the original energiness showed type 2 bynumetry ribers). The authors observed three types of intensity and type 2.

tion (Fig. 3). The X-ray pictures of the original specimens showed type 2. After 15 hrs, type 1 was observed in A and B. In A this transition took place without intermediate state in B a purely managing at materials. place without intermediate state, in B a purely monoclinic structure (type 3) was observed after 7 hrs, after 10 hrs type 2, and after 5 hrs type 1 7) was observed after ( hrs, after 10 hrs type 2, and after ) hrs type 1
were observed. After 8 months the lines of hexagonal structure became
more intense. The purely monoclinic structure is not stable. The calculations of the hexagonal attracture while forming a texture. passes into the hexagonal structure while forming a texture. The calcula-

card 1/6

33378 S/190/62/004/002/007/021 B101/B110

Change in the structure of ...

tion of the diffraction intensities from already published equations (Dokl. AN SSSR, 120, 1076, 1958) showed that with diffraction in regions containing 50 chains the maxima 200 and 002 are only slightly separated from each other, with 100 chains however, a distinct separation is observed. This calculation showed that the line intensities decrease which has, however, not been observed. Calculations made on the assumption that the deviation AQ from the ordinary interchain distance be proportional to this distance:  $\Delta Q = kQ$ , showed that for k = 0.1 the maxima merge without the intensity being reduced. Hence the distortion of the lattice of the chain centers in the equatorial plane and not the formation of groups containing 20-40 ordered chains is assumed to be the most probable reason of the line widening of the monoclinic structure. Transition 2 -> 1 corresponds to a better ordering of the lattice in the equatorial plane and to the occurrence of well ordered regions with monoclinic structure besides hexagonal regions. A. I. Kitaygorodskiy is thanked for discussions. There are 4 figures and 14 references: 12 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: W. O. Baker, C. S. Fuller, J. Amer. Chem. Soc., 62, 3275, 1940; 64, 2399, 1942; 65, 1120,

Card 2/1 3

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Change in the structure of ...

1943; D. R. Holmes, C. W. Bunn, S. J. Smith, J. Polymer Sci., 17, 159, 1955.

ASSOCIATION:

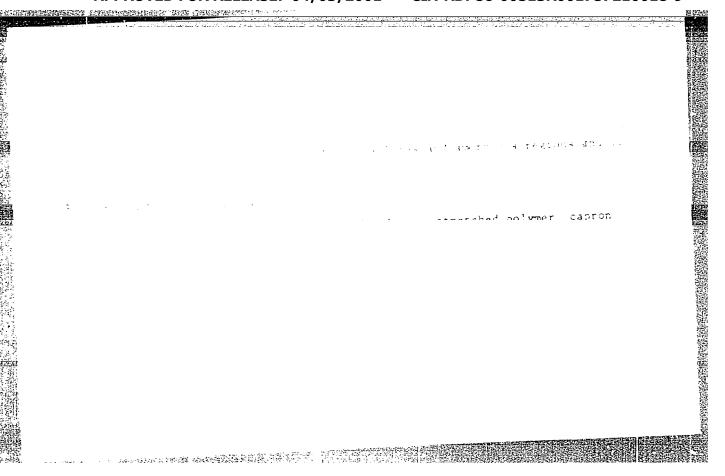
Nauchno-issledovatel'skiy i eksperimental no-konstruktorskiy institut prodovol'stvennogo mashinostroyeniya (Scientific Research, Experimental and Design Institute of Machine Construction for the Food Industry). Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elemental Organic Compounds of AS USSR)

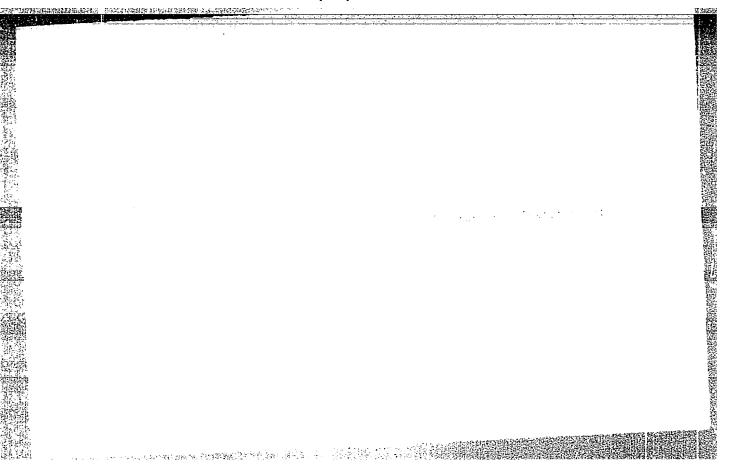
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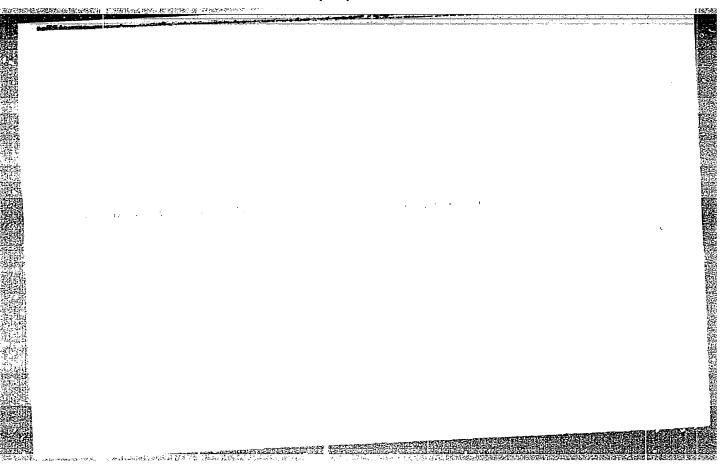
February 7, 1961

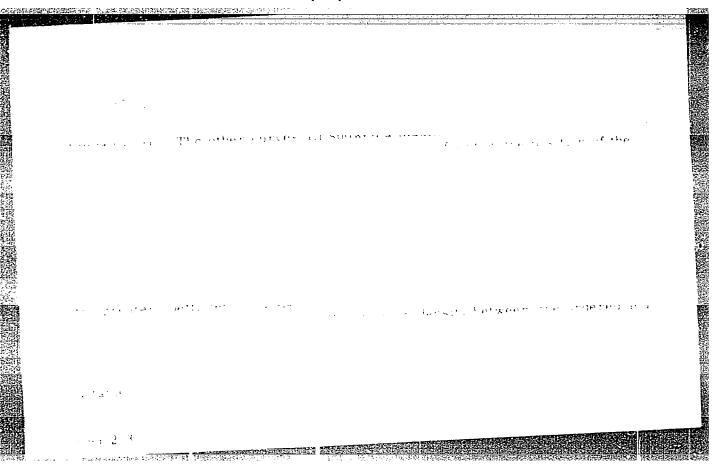
Fig. 3. Curves of intensity distribution in the region of the main interferences. Legend: (1) Two lines of monoclinic, and one of hexagonal structure; (2) line of hexagonal structure and wide circle formed by the merging of the two monoclinic lines; (3) two lines of monoclinic structure; ordinate, intensity in arbitrary units.

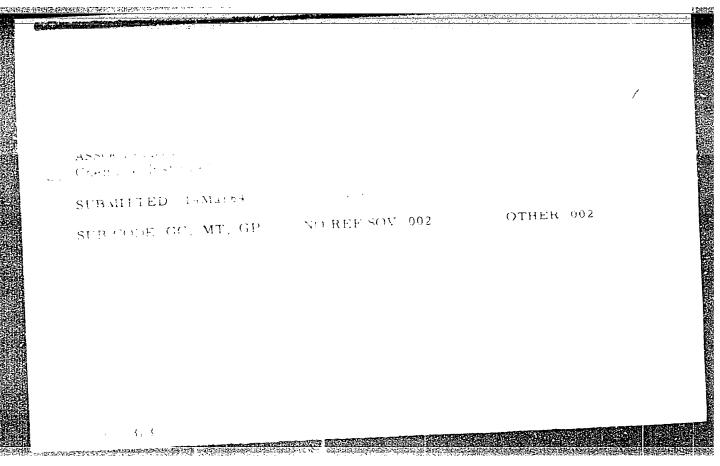
Card 3/4 2











EWT(m)/EWP(j)/T IJP(c) SOURCE CODE: UR/0190/65/007/011/1848/1856 ACC NR: AP6008961 AUTHORS: Zubov, Yu. A.; Tsvankin, D. Ya. ORG: Institute of Elementoorganic Compounds, AN SSSR (Institut elementoorganicheskikh soyedinenii AN SSSR); Institute of Physical Chemistry im. L. Ya. Karpov (Fiziko-khimicheskiy institut) TITLE: Temperature-induced changes of the long period in oriented polymers. 2. SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 11, 1965, 1848-1856 TOPIC TAGS: x ray diffraction pattern, synthetic fiber, thermal effect ABSTRACT: Reversible and irreversible changes in the structure of stretched polyethylene, caprone, and polypropylene fibers (resulting from thermal treatment) have been studied by means of small angle x-ray diffraction patterns. This work is an expansion of the observations discussed earlier by Yu. A. Zubov, D. Ya. Tsvankin, G. S. Markova, and V. A. Kargin (Dokl. AN SSSR, 157, 948, 1964). The experimental methods have been described by G. Kh. Razikov, Yu. A. Zubov, G. S. Markova, and V. A. Kargin (Vysokomolek. soyed., 5, 760, 1963). Studies of repeated heatingcooling experiments have shown that irreversible changes are due to the increase in UDC: 678.01:53

ACC NR: AP6008961			to the same of the	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,
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the size of crystallites a	nd amorphous a	reas occurring	ng during anne	aling, while bility and t	herm-
reversible changes can be	exprained by o	na croda. Og	well as by re	versible	· / /
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for evaluating the results	and for many	valuable sug	gestions." Or	ig. art. nas	. 1
table and 5 figures.					
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ZUBOV, Yu.A.; TSVANKIN, D.Ya.

Temperature-induced changes of the long period in oriented polymers. Part 2. Vysokom. soed. 7 no.11:1848-1856 N '65. (MIRA 19:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i Fizikokhimicheskiy institut imeni L.Ya. Karpova, Moskva. Submitted November 26, 1964.

ACC NO.	11609-66 EWT(m)/EWP(j)/T	SOURCE CODE: UR/0190/65/	007/012/2126/2131
AUTHORS:	Andrichenko, Yu. D.; Drug D. Ya.	zhinina, T. V.; Zubov, Yu. A.;	Konkin, A. A.;
0.20 - Ma	Tortile Institute (Most	kovskiy tekstil'nyy institut); <u>I</u> nstitut elementcorganicheskikh so	y out it out it is
	•	properties of polyethylene fibers	15,44,55
SOURCE:	Vysokomolekulyarnyye soyed	ineniya, v. 7, no. 12, 1965, 2126	-2131
TOPIC TAC	S: polymer, crystalline p elasticity, moleculor ata	olymer, linear polymer, polyethyl weture, solid mechanical propert	one, elastic y, synthetic fiber;
ABSTRACT:	: The inPluence of supermo lene fibers was studied. A leg on the structural transf	lecular structure on the mechanic particular emphasis was placed o ormation of linear polyethylene f C. The structural changes were i	in the effect of libers. The
means of interpret	x-ray spectroscopy, birefr tation of large angle x-ray Tsyankin (Vysokomolek, so	ingence, and density determination scattering data was carried out yed., 6, 2078, 2083, 1964). Mechan of the degree of stretching a	by the method nanical properties
Card 1/2			678.01:53+678.742
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ACC NR: AP6001866

tables and graphs. It was found that complete orientation of crystallites was realized at 800% stretching. The so-called large period first decreases from 200 Å to 173 Å, and then increases to 212 Å with increase in the degree of stretching. At higher degrees of stretching, the intensity of the large period decreases sharply. It is suggested that the marked increase in the elasticity modulus which increases in the large period is associated with the orientation of crystallites and with the increased degree of crystallinity of the polymer fibers. Orig. art. has: 2 tables and 4 graphs.

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(MIRA 18:5)

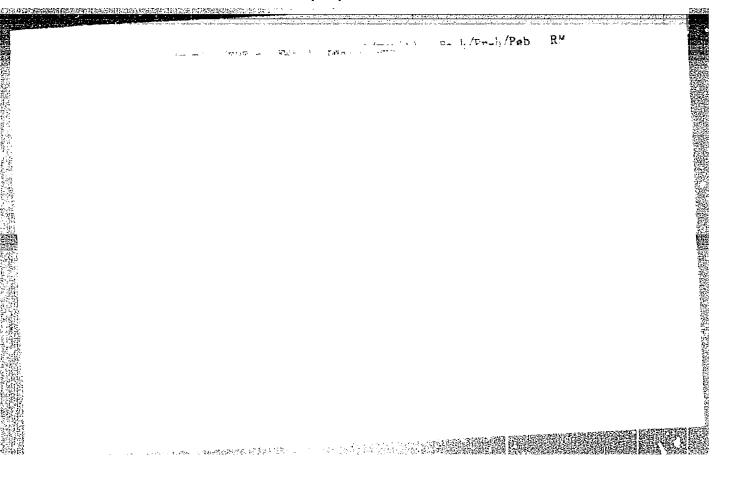
KAZARYAN, L.G.; TAVANKIN, D.Ya.

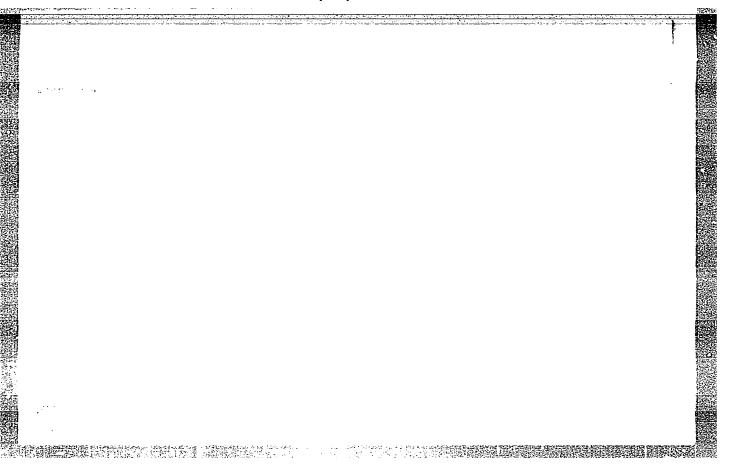
Amorphous texture of polyethylene terephthalate films. Vysokom.

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

soed. 7 nc.1:80-87 Ja 165.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210018-9"





### TSVANKIN, D. Ya.

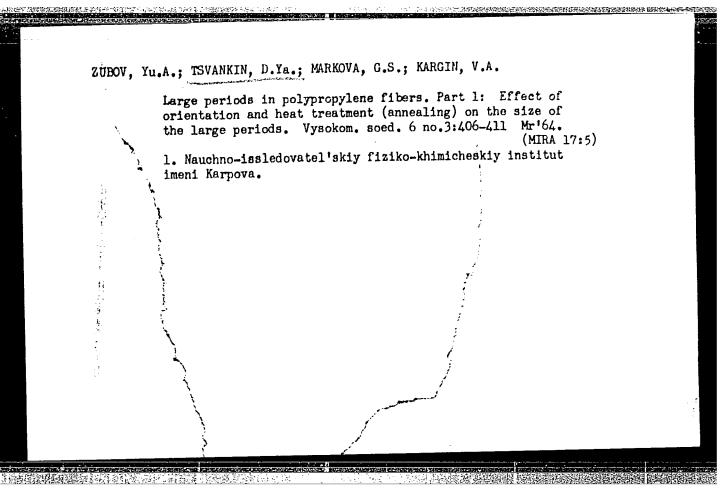
**电影处理器理器**自然性系统的现在分词

Diffraction on a linear system of crystallites: Long periods in polymers. Part 1. Vysokom. soed. 6 no.11:2078-2082 N '64 (MIRA 18:2)

Diffraction on  $\epsilon$  linear system of crystallites: Long periods in polymers. Part 2. Ibid.:2083-2089

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210018-9"



APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210018-9"

TAGER, Anna Aleksandrovna. Prinimali uchastiye: TSVANKIN, D.Ya.;
BORISOVA, T.I.; BURSHTEYN, L.L.; SLINKIN, A.A.; DULOV, A.A.;
MIKHAYLOV, G.P., red.; ROGAYLINA, A.A., red.; SHPAK, Ye.G.,
tekhn. red.

[Physical chemistry of polymers Fiziko-khimiia polimerov. Moskva, Goskhimizdat, 1963. 528 p. (MIRA 16:12) (Polymers)

KAZARYAN, L.G.; TSVANKIN, D.Ya.

X-ray diffraction study of the degree of orientation. Vysokom. soed. 5 no.7:976-978 Jl '63. (MIRA 16:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. (Polymers) (X rays—Diffraction)

APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210018-9"

KITAYGORGESKIY, A.I.; TSVARKIN, D.Ya.; FETROV, Yu.M.

Large periods in polythylone terephthalate films. Vysokom.scod.
5 no.7:1062-1068 Jl '63. (MPA 16:9)

1. Institut elementoorganicheskiki soyedineniy AN JESK.

(Terephthalic acid)

(X rays--Scattering)

Orientation of orystallites in a polyethylene terephthalate film. Part 2. Vysokom.soed. 5 no.1:129-134 Ja '63.

(MIRA 16:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

(Polyethylene) (Terephthalic acid) (Crystallography)

TSVANKIN, D. Ya. Orientation of crystallites in a polyethylene terephthalate Orientation of crystallites in a possible 163.
film. Part 1. Tysokom.soed. 5 no.1:123-128 Ja '63.
(MIRA 16:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

(Polyethylene) (Terephthalic acid) (Crystallography)

MOSKATOV, K.A.; CVANKIN, D.J. [Tsvankin, D.Ya.] # VLK, Oldrich [translator]

Changes in the structure of capron in thermal processing. Chem prum, 12 no.11:625-628 N 162.

1. Vedeckovyzkumny a konstrukchi ustav potravinarskych stroju, Moskova, (for Moskatov). 2. Institut zakladnich organickych latek, Akademie ved SSSR, Moskva (for Cvankin). 3. Vyzkumny ustav syntetickych pryskyric a laku, Pardubice (for Vlk).

KAZARYAN, L.G., TSVANKIN, D.Ya., ROGOVINA, L.Z.

Study of the orientation process during deformation of polypropylene

Report presented at the 13th Conference on the high-molecular compounds Moscow, 8-11 Oct 62

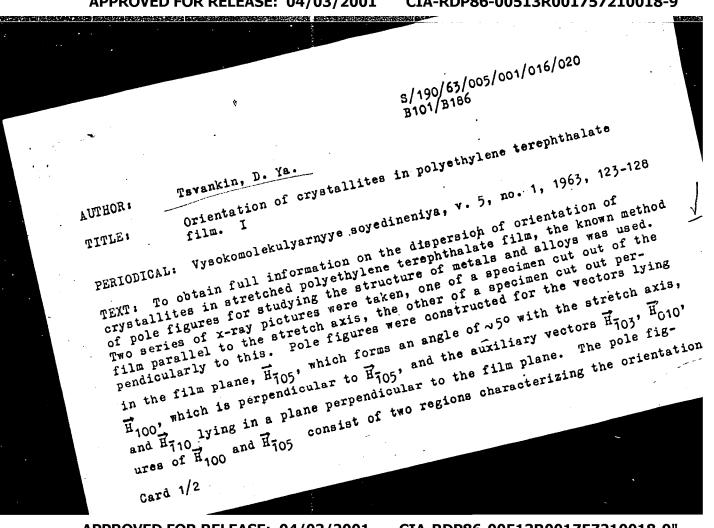
APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210018-9"

KORSHAK, V.V.; TSVANKIN, D.Ya.; KRUKOVSKIY, S.P.

Polyethylene terephthalate films (lavsan) with grafted polystyrene. Dokl. AN SSSR 146 no.6:1347-1348 0 '62.

(MIRA 15:10)

1. Chlen-korrespondent AN SSSR (for Korshak).
(Terephthalic acid) (Polyethylene) (Styrene polymers)



CIA-RDP86-00513R001757210018-9" APPROVED FOR RELEASE: 04/03/2001

S/190/63/005/001/016/020 B101/B186

Orientation of crystallites...

of all crystallites in the film. The pole figures of  $\overrightarrow{H}_{010}$ ,  $\overrightarrow{H}_{\overline{1}10}$ , and  $\overrightarrow{H}_{\overline{1}03}$  consist of four regions, each pair of regions characterizing the orientation of half of the crystallites. A discussion of the resulting pole figures will follow in another paper. There are 4 figures. The most important English-language reference is: C. Barett, Structure of Metals, New York, 1957.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: August 29, 1961

Card 2/2

S/190/63/005/001/017/020 B101/B186

AUTHOR:

Tsvankin, D. Ya.

TITLE:

Orientation of crystallites in polyethylene terephthalate

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 5, no. 1, 1963, 129-134

TEXT: On the basis of his previous paper (Vysokomolek. soyed., 5, 123, 1963) describing the method of constructing pole figures from x-ray pictures, the author deals here with the shape of pole figures of the vectors  $\overrightarrow{H}_{\overline{105}}$ ,  $\overrightarrow{H}_{100}$ ,  $\overrightarrow{H}_{\overline{103}}$ ,  $\overrightarrow{H}_{010}$ , and  $\overrightarrow{H}_{\overline{110}}$  which were drawn for stretched polyethylene terephthalate film. The pole figure of  $\overrightarrow{H}_{\overline{105}}$  which characterizes the distribution of the axes of macromolecules consists of elongated regions along the central meridian of projection lying in the film plane. The pole figure of  $\overrightarrow{H}_{100}$  is made up of two ellipses with the major axis lying in the equator of projection. The pole figure of  $\overrightarrow{H}_{\overline{103}}$  consists of two ellipses on the equator, on both sides of the points where the equator Card 1/2

Orientation of crystallites...

S/190/63/005/001/017/020 B101/B186

intersects the central meridian. The pole figures of  $\overrightarrow{H}_{010}$  and  $\overrightarrow{H}_{\overline{1}10}$  are circles with an elliptic bulge, toward the intersection equator - central meridian for the former vector and away from the intersection resembling horizontal drops for the latter. The pole figure of  $\overrightarrow{H}_{\overline{1}05}$  shows that the main quantity of macromolecules are oriented nearly in the same direction, while a small group of macromolecules shows arbitrary orientations. A comparison of the pole figures of  $\overrightarrow{H}_{100}$  with  $\overrightarrow{H}_{010}$  and  $\overrightarrow{H}_{\overline{1}10}$  shows that one half of the crystallites are turned in one direction by  $\overrightarrow{H}_{\overline{1}05}$ , the other half in the opposite direction. The straggling amplitude attains 40°. The straggling around the axis perpendicular to  $\overrightarrow{H}_{100}$  and  $\overrightarrow{H}_{\overline{1}05}$  is only 10-15°. The structure consists of two incomplete axial structures, the axes of which are the axis of the macromolecules and the normal to the film plane.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elemental Organic Compounds AS USSR)

SUBMITTED: Card 2/2

August 29, 1961

BERESTNEVA, G.L.; TSVANKIN, D.Ya.; KOZLOV, P.V.

Effect of stretching on the structure and properties of polyethyleneterephthalate films. Part 5: X-ray diffraction studies of crystallization processes occurring in uniaxially oriented films. Vysokom.soed. 3 no.12:1787-1793 D '61. (MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut i Institut elementoorganicheskikh soyedineniy AN SSSR.

(Ethylene polymers) (Crystallization)

5.4400 15.840 h1738 S/020/62/146/006/012/016 B106/B186

AUTHORS:

Korshak, V. V., Corresponding Member AS USSR, Tsvankin, D. Ya., Krukovskiy, S. P.

TITLE:

Investigation of polyethylene terephthalate (Lavsan) foils

with grafted polystyrene

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 146, no. 6, 1962, 1347-1348

TEXT: With a view to investigating how much the structure of a polymer foil is affected by grafting another polymer onto the same, the following grafting experiments were made: amorphous layers of polystyrene of different thicknesses were grafted onto two 28-4 thick crystalline foils of polyethylene threphthalate by keeping the mixture of both compounds at 80°C for 3 and 8 hrs, respectively, in a nitrogen atmosphere together with styrene. Results: after heating the mixture for 3 hrs, a foil 46 4 thick with a yield of 20.95% (by weight of the initial foil) of grafted polystyrene was obtained and after heating the same for 8 hrs, a foil, 143 4 thick with a yield of 195% was the result. For control purposes, two foils were prepared by laminating the same original materials in a simple manner, using Card 1/2

Investigation of polyethylene ... S/020/62/146/006/012/016 the same proportions by weight. X-ray pictures of the two grafted samples were compared with the two control samples. In addition, cross-sectional photographs of the grafted samples were examined. The polyethylene terephthalate foil was found to remain unaffected by the grafted polystyrene. This indicates that the major part of crystals of the initial foil does not participate in the grafting process and that neither the structure nor the relative orientation of crystallites in the foil is disturbed. The crosssectional photographs revealed a comparatively sharp boundary between the grafted layer of polystyrene and the initial foil. The transition zone is considerably smaller than the thickness of the grafted layer. All this shows that grafting occurs only in an extremely thin surface layer of the foil. The polymer used for grafting will not penetrate farther into the base foil even if its thickness is increased. There are 2 figures.

SUBMITTED: June 5, 1962

Card 2/2

MOSKATOV, K.A.; TSVANKIN, D.Ya.

其可**用的图像图像**(1995年)。

Changes in the structure of capron on thermal treatment. Vysokom. soed. 4 no.2:201-206 F '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy i eksperimental'no-konstruktorskiy institut prodovol'stvennogo mashinostroyeniya i Institut elemento-organicheskikh soyedineniy AN SSSR.

(Nylon)

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APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757210018-9"

ISVAIGEL, YU. A.

USSR/Engineering

Card 1/1

FD 274

Authors

: Gubkin, S. I., Active Member, and Yu. A. Tsvaygel'.

Title

: Deformability of bronzes in pressure working

Periodical

Iz. Ak. Nauk SSSR, OTN, 1, 128-137, Jan 1954

Abstract

: Presents results of experimental study of mechanical and technological properties of the three standard copper-base alloys: aluminum-iron bronze BrAZh9-4, beryllium bronze BrB2, and tin-phosphorous bronze BrOF7-0.2. Establishes optimum temperature ranges for hot working. Gives properties from 20°C to 900°C under various types of load.

Institution : Academy of Sciences of the Belorussian SSR

Submitted

: March 11, 1953

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•				11579° sian.) S. I. SSSR, Old	Deformability of Gubkin and Iu. A clente Tekhniches	Pressure Worken Tsynine]. Izvestila kikh Nauk, 1954, r	Bronzes, (Rus- Akademii Nauk no. 1, Jan. 1, p.			.:
		فالمتعيد		Investigation Tables, gra	on of Al-Fe, Be, as phs. 1 ref.	nd Sn-P bronzes fro	om 20 to 900 C.	•		
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OSTROVITYANOV, Emiliy Mikhaylovich; IVANOV, Boris Yakovlevich;
AFANAS'YEV, A.A., retsenzent; ZASLAVSKIY, M.A., retsenzent; SHVETSOVA,
T.P., retsenzent; TSVAYGENBAUM, B.M., retsenzent; MELIKSET YAN, M.A.,
retsenzent; MINATEVA, T.M., redaktor; POPOVA, T.G., tekhnicheskiy
redaktor

[Technology of footwear; assembling uppers, molding, sewing and finishing processes] Tekhnologiia obuvi; sborka zagotovok, formovochnye, poshivochnye i otdelochnye protsessy. Moskva, Gos. nauchno-tekhn. izd-vo M-va legkoi promyshl. SSSR, 1956. 391 p.

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Abberant mammary gland on labium majus. Akush. i gig. 33 no.2: 89-90 Mr-Ap 156. (MLRA 9:7)

1. Iz ginekologicheskogo otdeleniya Sorikskoy gorodskoy bol'nitsy (glavnyy vrach F.P.Zatvornitskiy) i respublikanskogo onkologicheskogo dispansera (glavnyy vrach G.B.Khonelidze)

(VULVA) (MAMMARY GLANDS)

TSVANTSINGER B. INZH.-TEKHNOLOG

"Zadachi puskovogo perioda Kashpirskogo slantseperegonnogo zavoda", p.8 Goryuchiye Slantsy, No 5-6, 1932

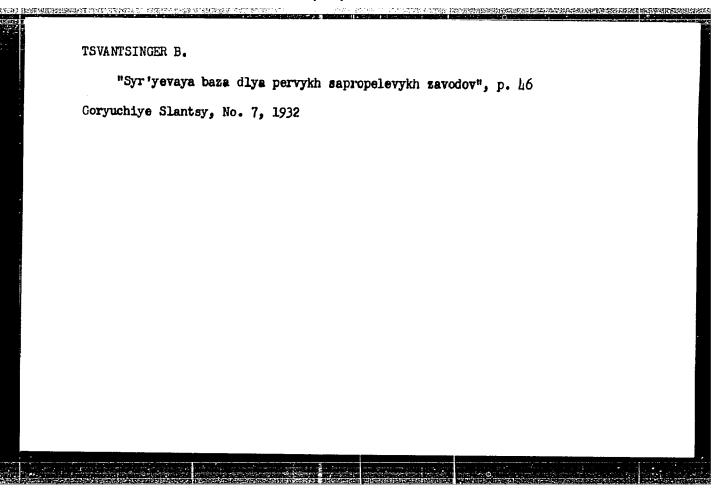
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#### TSVANTSINGER B.

"V sapropelevom voprose nakonets vnov' nastupayet yasnost", p. 47 Goryuchiye Slantsy, No. 5-6, 1932

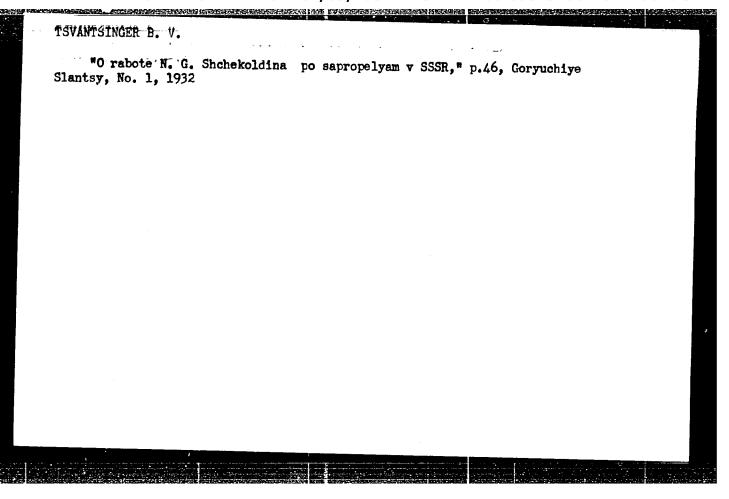
TSVANTSINGER B.

"O rabote N.G. Shchekoldina po sapropelyam v SSSR" p. 45 Goryuchiye Slantsy, No. 2, 1932.



TSWANTSINGER B. V.

"Po-udarnomu zakonchit' stroitel'stvo zavodov", P. 12
Goryuchiye Slantsy, No h, 1932



TSVANTSIGER, B.V.

Orabote N.G. Shchekoldina Po Sapropelyam V SSSR, Goryuchiye Slantsy, 1932, No. 1, 46, No. 2, 45.

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SO: Goryuchiye Slantsy #1934-35, TN .971 G .74

TSVANTSIGER, B.V.

Pó-Udarnomu Zakonchit' Stroitel'St Vo Zavodov, Goryuchiya Slantay, 1932, No. 4, 12.

SO: Goryuchiye Slantsy #1934-35, TN .871 G .74

TSVANTSIGER, B.V.

Zadachi Puskovogo Perioda Kashpirskogo Slantseperegonnogo Zavoda, Goryuchiye Slantsy, 1932, No. 5-6, 8.

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TSVANTSIGER, B.V.

V Sapropelevom Voprose, Hakonets, Vnov' Nastupayet Yasnost, Goryuchiye Slantsy, 1932, No. 5-6, 47.

SO: Goryuchiye Slantsy #1934-35, TN .871 G .74

TSVANTSIGER, B.V.

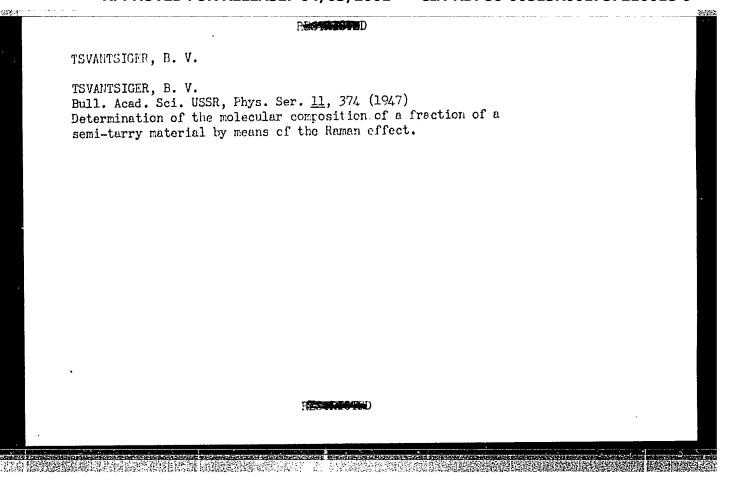
Syr'Yevaya Baza Dlya Pervykh Saprope-Levykh Zavodov, Goryuchiye Slantsy, 1932, No. 7, 46.

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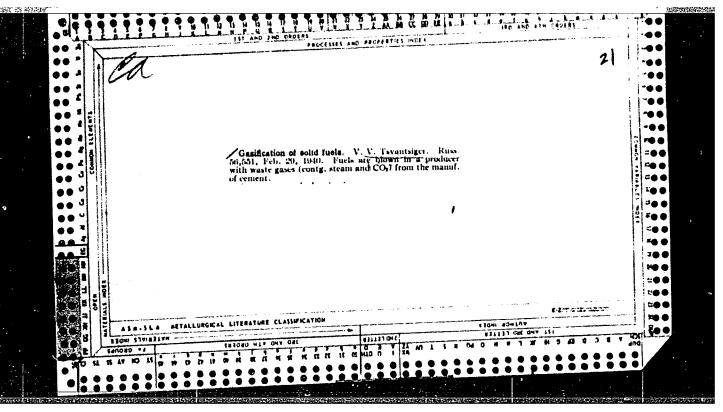
TSVANTSIGER, B.V.

Ob Asfal'Takh I Bitumakh Iz Slantsevoy Smoly, Goryuchiye Slantsy, 1932, NO. 11-12, 61.

SO: Goryuchiye Slantsy #1934-35, TN .871 G .74



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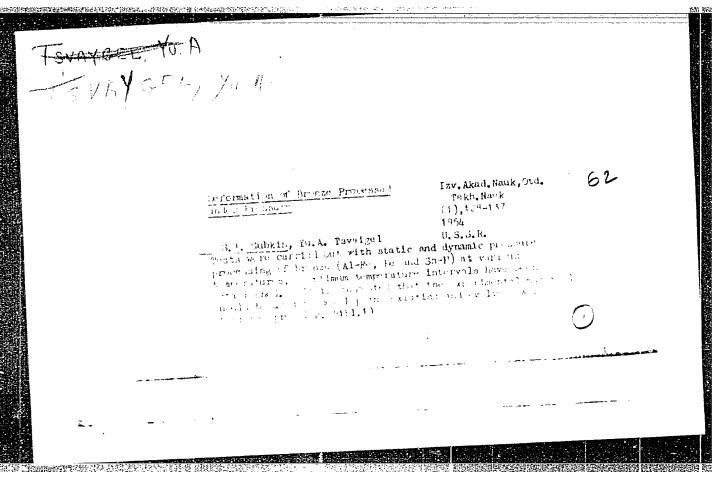
GAGEN-TORN, K.V.; KOTOV, V.V.; Prinimali uchastiye: 1EVIN, Z.G.;
TSVAYGEL, L.D.

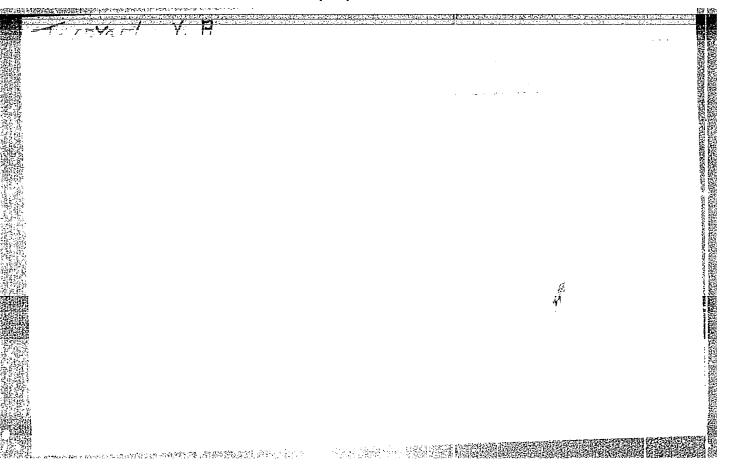
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drawing. Trudy Giprotsvetmetobrabotka no.24:264-268 165.

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Mothods of determining and removing internal stresses in trace (162) rectangular cross-section pipe. Trudy Giprotevetmetokrabotka no.24,236-241 165. (MIRA 18:11.)





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SO: VECHNINAYA FOREYA, JANUARY-DOCCHMENTING.

OUBKIN, S.I.: TSVAYGEL', Yu.A.

Deformability of bronze processed by pressure methods. Izv.AN
SSSR Otd.tekh.nauk no.1:128-137 Ja '54. (MIRA 7:3)

1. Deystvitel'nyy chlen Akademii nauk BSSR.
(Bronze) (Deformations (Mechanics))

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RUBASHKINA, T.S.; GERCHIKOVA, N.S.; TSVAYGENBAUM, B.M.

New rubber heel design. Kozh.-obuv. prom. 5 no.6:28-39 je 163.

(MIRA 16:6)

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Intestinal obstruction as a complication of pregnancy. Akush.

Intestinal obstruction as a complication of pregnancy. Akush.

i gin. 34 no.5:112 S-0 '58 (MIRA 11:10)

i gin. 34 no.5:112 S.C. (MIRA 11:10)

(PREMARCY, COMPLICATIONS OF)

(INTESTINES.—OBSTRUCTION)

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TSov'yanov's method of labor conduction in breech presentation. Sov. med. 16, no. 3, 1952.

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1. Iz ob"yedinennoy bol'nitsy g. Soroki (glavnyy vrach T.I. Shevtsov). (PREGNANCY, EXTRAUTERINE)

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TSVAYNER, Ya.P.

Cytologic diagnosis of cancer of the corpus uteri. Akush.i gin. no.2: 83-85 Mr-Ap 54. (MLRA 7:6)

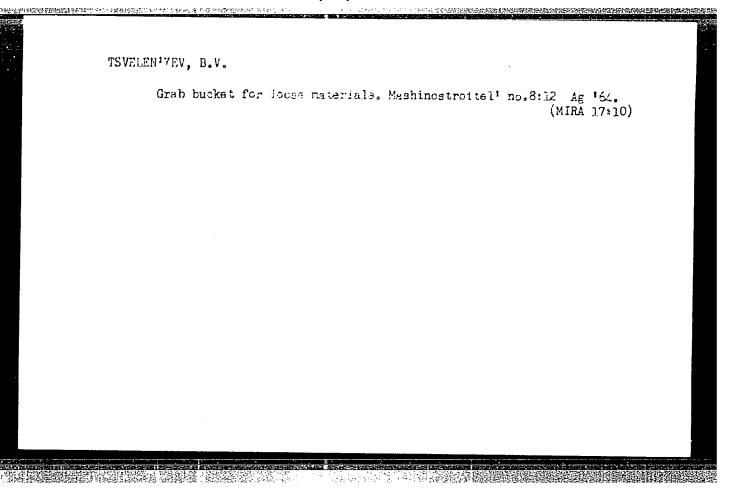
1. Iz kafedry akusherstva i ginekologii (ispolnyayushchiy obyszannost zaveduyushchego dotsent R.N.Kazarosyan) Tashkentskogo instituta usovershenstvovaniya vrachey. (Uterus--Cancer)

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Aromatic hydrocarbons. Part 28: Thermal aromatization of 1,2,3,6-tetrahydrobenzoic acids to benzene and alkyl benzenes. Zhur.ob.khim. 33 no.4:1069-1071 Ap 163. (MIRA 16:5)

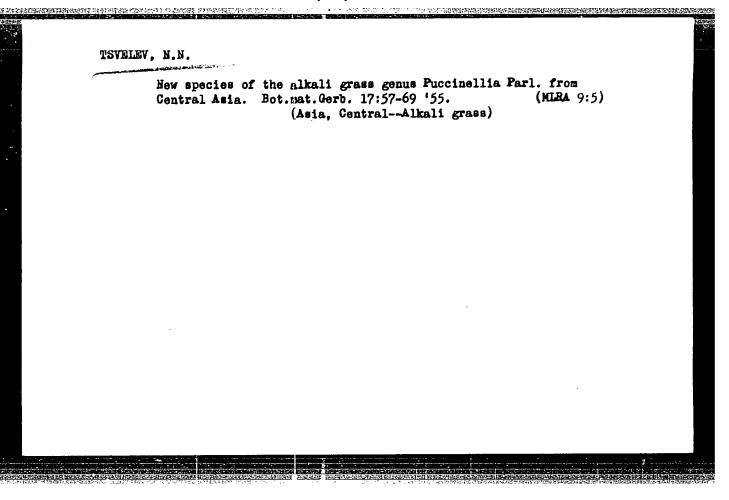
1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova. (Cyclohexanecarboxylic acid) (Aromatization) (Benzehe derivatives)

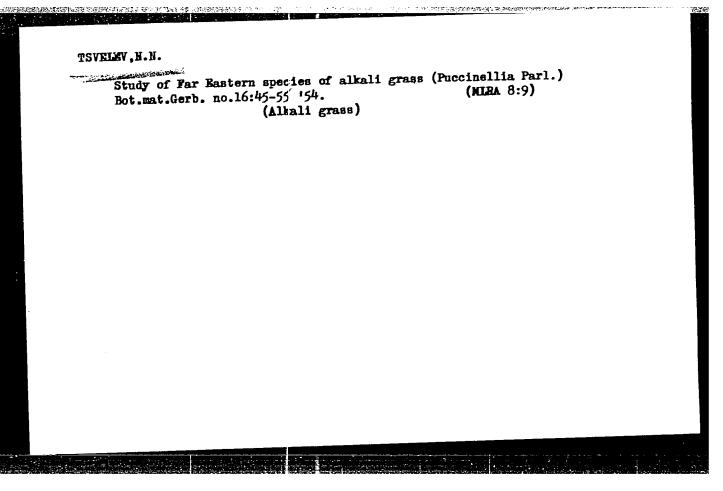


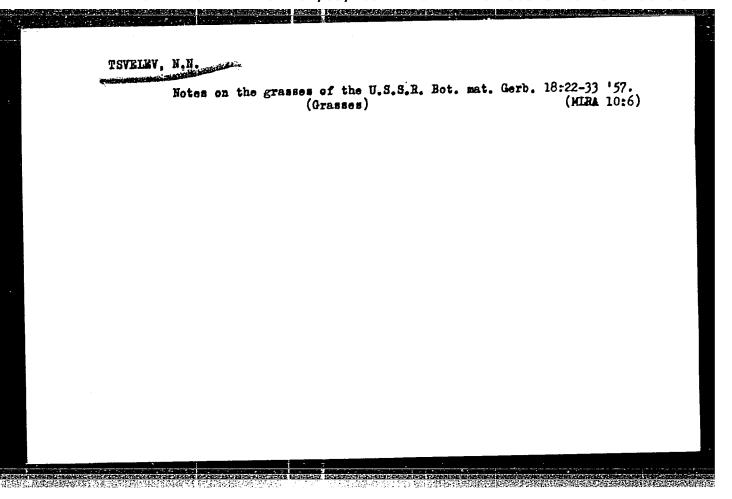
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i ker. 21 no.7:28-32 Jl. '64. (MIRA 17:10)

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LEONOVA, T.G.; LIPSHITS, S.Yu.; TSVELEV, N.N.; CHEREPANOV, S.K.;
SMISHKIN, B.K. [deceased]; BOBROV, Ya.G., prof. doktor biol.nauk,
red. toma.

[Cichorioideae.] Cichorioideae. Moskva, Izd-vo Nauka, 1964. 796 p.
(Flora SSSR, vol.29)

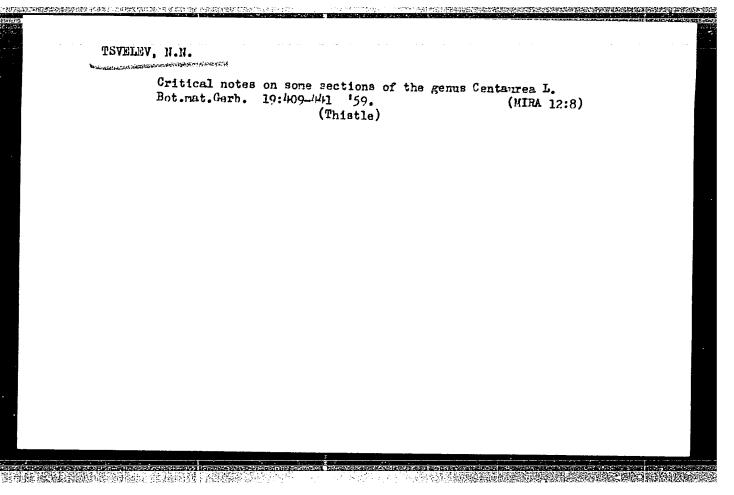
(MIRA 18:2)

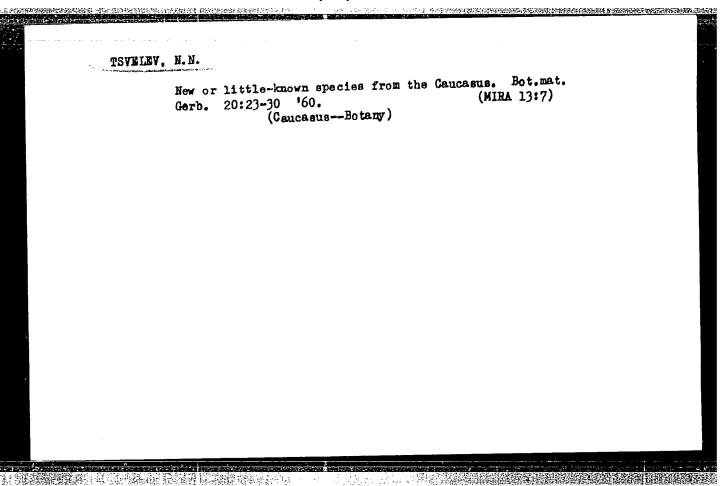
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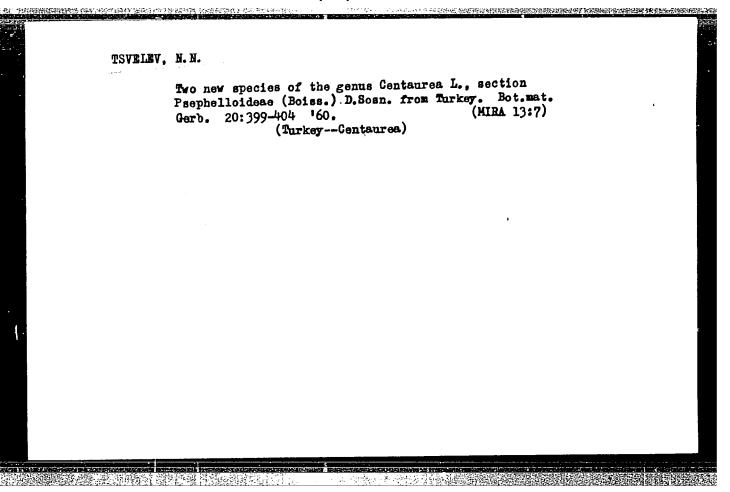
BORISOVA, A.G.; BOCHANTSEV, V.P.; VASIL'CHENKO, I.T.; GOLUBKOVA, V.F.;
GORSHKOVA, S.G.; GRUBOV, V.I.; KIRPICHNIKOV, M.E.; SMOL'YANINOVA, L.A.;
TAMANSHYAN, S.G.; TSVELEV, N.N.; YUZEPCHUK, S.V.; KOMAROV, V.L.,
akademik, glavnyy řed.; SHISHKIN, B.K., red.izdaniya; BOBROV, Ye.G.,
doktor biol.nauk, prof., red.; SHIRNOV, A.V., tekhn.red.

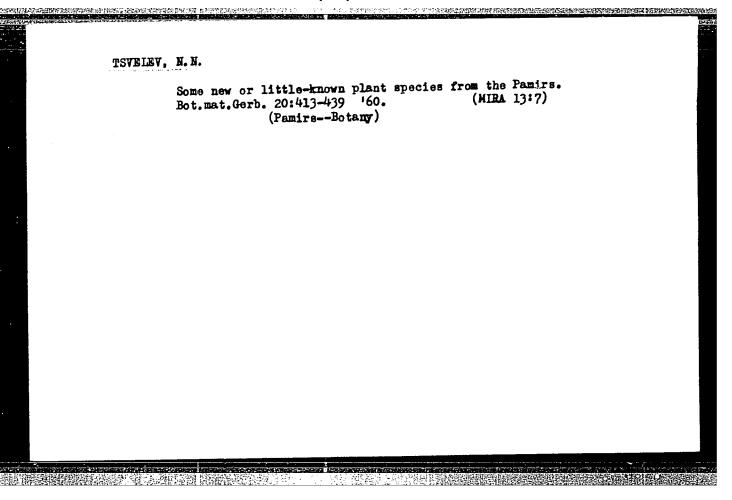
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(59. (Hesperis)

BORISOVA, A.G.; BOCHANTSEV, V.P.; VASIL'CHENKO, I.T.; GOLUBKOVA, V.F.;

GORSHKOVA, S.G.; GRUBOV, V.I.; KIRPICHNIKOV, M.E.; SMOL'YANINOVA,

L.A.; TAMAMSHYAH, S.G.; TEVELEV, H.N.; TSVETKOVA, L.I.; YUZEP
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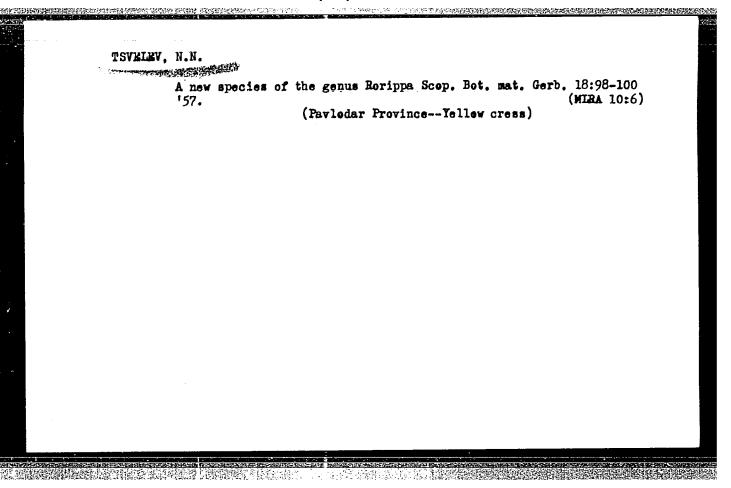
biol.nauk, prof., red.: SMIRNOVA, A.V., tekhn.red.

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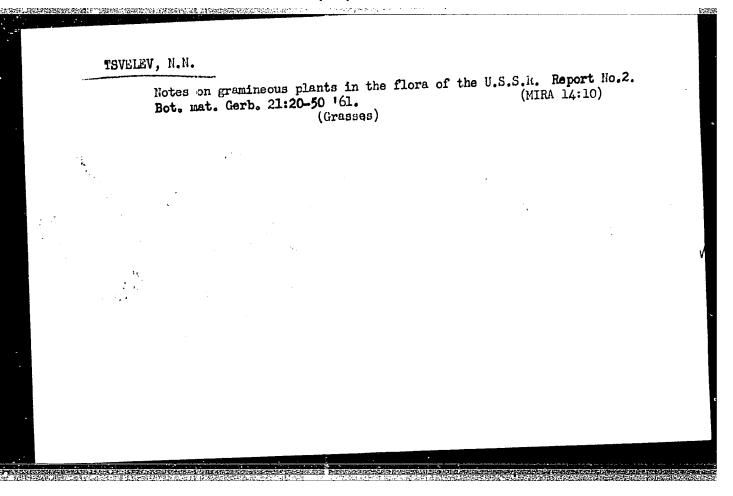
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KOMAROV, V.L., akademik, glavnyy red.; SHISHKIN, B.K., red. izdaniya;
BOBROV, Ye.G., doktor biol.nauk, prof.red.; VASIL'CHEMKO, I.T.,
red.; GORSHKOVA, S.G., red.; GRIGOR'YEV, Yu.S., red.; GEUBOV, V.I.,
red.; DOROFEYEV, P.I., red.; IL'IHSKAYA, I.A., red.; KIOKOV, M.V.,
red.; KUPRIYANOVA, L.A., red.; LINCHEVSKIY, I.A., red.; HOVOPOKROVSKIY, I.V., red.; POBEDIHOVA, Ye.G., red.; POPOV, M.G., red.;
POYARKOVA, A.I., red.; SHTEYNBERG, Ye.I., red.; TSVELEV, N.N., red.;
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IL'IN, M.M.; KIRPICHNIKOV, M.E.; KNORRING, O.E.; KUPRIYANOVA, L.A.;

POBED IMOVA, Ye.G.; POLYAKOV, P.P.; POYARKOVA, A.I.; SMOL'YANINOVA, L.A.;

FEDOROV, An.A.; TSVETKOVA, L.I.; TSVELEY, N.N.; SHISHKIN, B.K.;

KOMAROV, V.I., akademik, glavnyy red.; BOEROV, red.toma; SHISHKIN, B.K.;

red.izd.; SMIRNOVA, A.V., tekhn.red.

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[Arctic flora of the U.S.S.R.; a critical survey of vascular plants found in the Arctic regions of the U.S.S.R.] Arkticheskaia flora SSSR; kriticheskii obzor sosudistykh rastenii, vstrechaiushchikhsia v arkticheskikh raionakh SSSR. Moskva, Nauka. No.2. [Family Gramineae] Semeistvo Gramineae. 1964. 272 p. (MIRA 17:10)

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Toma rare species of the Onimean flora, Potimet, Gerb, 22:3-7, 163.

Notes on granes of the C.B.S.R. Report No. 3. Ibid.:51-69

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The new genus Sisymbriopsis Nob. of the mustard family. Bot.
mat. Gerb. 21:143-145 '61.

(Pamirs—Sisymbriopsis)

(Pamirs—Sisymbriopsis)

A new Gerb.	species of the genus He 21:146-147 '61. (Malazgirt region, T	esperis L. from Turke TurkeyRocket (Bo <b>te</b> n	(LITTOL TH.TO)

BOEROV, Ye.G., doktor biol.nauk, prof.; VASIL'CHENKO, I.T.; GORSHKOVA, S.G.; GRIGOR'YEV, Yu.S.; GRUBOV, V.I.; DOROFEYEV, P.I.; IL'INSKAYA, I.A.; KIOKOV, M.V.; KUPRIYAMOVA, L.A.; LINCHEVSKIY, I.A.; NOVOPOKROVSKIY, I.V.; POBEDIMOVA, Ye.G.; POPOV, M.G.; POYARKOVA, A.I.; SHTEYNBERG, Ye.I.; TSVELEV, N.N.; SHISHKIN, B.K., red. izdaniya; SMIRNOVA, A.V., tekhn.red.

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